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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,330	10/03/2000	Keizo Kimura	2016-0165P	4810
2292	7590	07/26/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			BALASUBRAMANIAN, VENKATARAMAN	
			ART UNIT	PAPER NUMBER
			1624	
DATE MAILED: 07/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

### Application No.

09/678,330

### Applicant(s)

KIMURA ET AL.

### Examiner

Venkataraman Balasubramanian

### Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

Applicants' response, which included amendment to claims 1,8 and cancellation of claim 10, filed on 4/21/2004 is made of record.

Claims 1-3 and 6-9 are now pending.

In view of applicants' response, the following apply.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling rapid solubility at 40 °C and lack of deposit upon subsequent cooling to 0 °C for compounds I-1, I-2 and I-4 at 20 g per 100mL does not reasonably provide enablement for variously substituted structurally diverse compounds with long alkyl chain and various metal salts other than alkali metal. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. The following apply

Representative examples of variously structurally diverse compounds generically embraced in the invention are not shown to possess the solubility characteristics asserted as important feature, which distinguishes the instant compounds over known prior art compounds. Instant genus of triazinyl-diaminostibene compound embrace compounds with substituents bearing plethora of structural cores such as long chain

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alkyl aryl etc and functional groups and other groups permitted at instant L1, L2, R<sup>11</sup>, R<sup>12</sup>, R<sup>21</sup>, and R<sup>22</sup> variables along with various M which include alkaline earth metals such as Ca, Ba, Sr etc. There is no reasonable basis for assuming that the myriad of compounds embraced by the claims will all share the same solubility profile since they are so structurally dissimilar as to be chemically non-equivalent and there is no basis in the prior art for assuming the same. In fact, the results shown on page 27-28 clearly shows that structurally related compounds vary in their dissolution time and subsequent deposition upon cooling. For example the instant compound I-1 differs from comparison compound a in having only an additional hydroxyl in the propyl chain yet as asserted by applicants, the comparison compound is not suitable for the intended utility. If such a subtle change in structure can affect the solubility characteristics, there is no basis to assume that all the instant compounds would comply with the solubility characteristics asserted essential for the intended utility. Moreover, salts of Ca, Ba, Sr etc are in general less soluble than the corresponding alkali metal salts, and there is no reasons to expect that the sulfonic acid salts of these metals would also behave in the same manner as asserted in the specification. Note In re Surrey 151 USPQ 724 regarding sufficiency of disclosure for Markush group. Also see MPEP 2164.03 for enablement requirements in cases directed to structure-sensitive art.

Note Ex parte Gelles 22 USPQ 2nd 1318, especially the following quote: " The evidence relied upon also should be reasonably commensurate in scope with the subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

Thus, factors such as “sufficient working examples”, “the level of skill in the art” and “predictability”, etc. have been demonstrated to be sufficiently lacking in the instant case for the instant method of use. In view of the breadth of the claims, the chemical nature of the invention, the unpredictability of solubility of various metal salts of sulfonic acid in general, and the lack of working examples regarding the solubility of representative examples of the claimed compounds, one having ordinary skill in the art would have to undergo an undue amount of experimentation to use the instantly claimed invention commensurate in scope with the claims.

This rejection is same as made in the previous office action except that amended claims 1-8, which limits M and other variables as well as cancelled claim 10 is excluded from this rejection.

Applicants' traversal of this argument is not persuasive.

Applicants' argument that it is not proper to apply a 112 rejection based on the applicants' declaration to establish unexpected/superior properties is noted but deemed as not persuasive. Applicants are relying on the inherent property of a compound namely its solubility and the scope of enablement should therefore include various alkaline earth metals. There is no reason to believe all M particularly alkaline earth metals would share the same property. Amendment to claims as in claim1 would obviate this rejection.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

In view of applicants' amendment, the 103 rejection over Crounse et al. US 3,193,548 in view of Deguchi et al. US 5,395,742 has been obviated.

Claims 1-3 and 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buell US 3,309,363 in view of Deguchi et al. US 5,395,742 for reasons of record.

This rejection is same as made in the previous office action except that cancelled claim 10 is excluded from this rejection now.

Applicants' traversal is not persuasive. The following apply to the traversal.

Contrary to applicants urging (page 14 of the response) that "identical substituent" structure is critical to Buell's invention and that as shown in table in columns 5 & 6 of Buell's '363, triazine rings with different substituents result in loss of strength in resin exchange-cationic softener applications, there is no such teaching on these stated column. Buell's clearly teaches both identical substituents and different substituents as seen in table in columns 5 & 6 See fourth compound and eighth compound. Thus one trained in the art would attach equal weight to identical and different substituents. There is no explicit teaching that one should choose identical substituents, as there are compounds with different substituents. Hence, contrary to applicants urging one trained in the art would not be refrained from introducing different substituents onto the same ring of the triazine.

As for applicants' argument that Deguchi et al. teaches,  $\text{NH-CH}_2\text{-CH}_2\text{-OH}$  on the triazine ring which is not embraced in the instant claim, applicants should note that Deguchi et al. is applied as in view of reference and there is clear-cut overlapping of subject matter between the primary reference and the secondary reference. Hence there is a clear equivalency teaching of  $\text{NH-CH}_2\text{-CH}_2\text{-OH}$  and  $\text{NH-CHOH-CHOH-CH}_3$  groups. Hence one trained in the art would have been motivated to combine teachings of both the primary and secondary reference and expect to overcome the trouble some properties and obtain product of desirable properties for the utility taught.

Hence the above rejection is proper.

Applicants have not directly addressed the issues raised by the examiner in the previous office action about the declaration and comparative data. These are repeated below:

As for the declaration and comparative studies on page 27 and 28, the following apply:

1. First of all. Applicants should note that obviousness type 103 rejection requires a proper factual inquiry and objective evaluation of any evidence presented to obviate the obviousness. Examiner had clearly established the factual basis for these rejections as noted in the previous office actions and the above clear-cut Wands factor analysis. The issue then being is it possible to evaluate objectively the evidence presented by the declaration.

Declaration and specification on page 27, line 36 and page 28 state "some insoluble remained in 300 sec."

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As recited, it is not possible to accept the evidence and make objective evaluation. It is not clear how much material remained out of the 20 gram of compound. Would increase in dissolution time resolve the issue? Would increase in amount of water solve the problem? Would increase in temperature along with all the above factors resolve the problem? There is no teaching or suggestion in the specification what are the critical parameters. Thus one trained in the art would not be able to make an objective evaluation of the above statement that "some insoluble remained in 300 sec."

2. Secondly, in response to examiner's comment that the declaration of Takanori Hioki was considered but was deemed as improper and nonconclusive, applicants have asserted that a) rapid solubility and b) lack of deposits after storing at specified temperature are essential for compounds used in the photographic art. Reading specification, it appears that both of these have to be met with. But applicants have not clearly established the criteria of solubility and storage parameters. It is not clear what concentration, what temperature and what time duration are critical. Thus, one trained in the art may use lower concentration instead of 20 g in 100ml water used in the comparative studies to circumvent any solubility/ storage problem if any and applicants have not shown why one would not do so.

3. Thirdly the declaration or the specification on page 27-28 has shown that the unexpected/superior properties applicants assert are applicable to all compounds of the genus embraced in the instant invention. Note Ex parte Gelles 22 USPQ 2d 1318, especially the following quote: " The evidence relied upon also should be reasonably



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commensurate in scope with the subject matter claimed and illustrate the claimed subject matter " as a class" relative to prior art subject matter."

4. Finally, the comparative results should be evaluated for objective evidence as a whole but not in part. Specification on page 28 shows for instant compound I-4 two set of results, which vary in solubility time. It is not clear why such variation is seen and whether such variations in dissolution time are often common for same compound under identical conditions.

5. Applicants also seem to emphasize "30 sec" dissolution time but the examples on page 27-28 seem to permit variation in dissolution time and thus dissolution time does not appear to be a critical factor.

In addition to above issues stated in the previous office action, as for the traversal the following also apply.

Applicants' argument appears to emphasize that solubility within a specified time (less 150 seconds) is critical and that instant compounds meet this requirement. However, applicants should note that MPEP 2145 says: Attorney argument is not evidence...

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness."). See MPEP § 716.01(c) for

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examples of attorney statements which are not evidence and which must be supported by an appropriate affidavit or declaration.

Therefore, applicants are urged to provide evidence from related prior art or an affidavit/declaration to establish criticality of solubility within a specified time and an assertion that instant compounds meet that requirement.

In absence of any such evidence or affidavit/declaration, the above 103 rejection is deemed as proper and is maintained.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication from the examiner should be addressed to Venkataraman Balasubramanian (Bala) whose telephone number is (571) 272-0662. The examiner can normally be reached on Monday through Thursday from 8.00 AM to 6.00 PM. The Supervisory Patent Examiner (SPE) of the art unit 1624 is

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Mukund Shah whose telephone number is (571) 272-0674. If Applicants are unable to reach Mukund Shah within 24-hour period, they may contact James O. Wilson, Acting-SPE of art unit 1624 at 571-272-0661.

The fax phone number for the organization where this application or proceeding is assigned (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-1600.

  
Venkataraman Balasubramanian

07/21/2004